Service Manual

FM-MW-LW-SW1∼7 10-Band Portable Radio RF-B50L

- Please use this manual together with the service manual for model No. RF-B50L order No. RD83095388C2.
- This Service Manual indicates the main differences between; Original RF-B50L and RF-B50L for F.R. Germany.

SPECIFICATIONS COMPARISON TABLE

Specification	RF-B50L RF-B50L (For F.R. Germany)	err I
Antenna	EXT Antenna; FM 75Ω LW, SW1~7 ————————————————————————————————————	.

PARTS COMPARISON TABLE

	THE STATE OF THE S	Part N	lumber		
Ref. No.	Part Name & Description	RF-B50L	RF-B50L (for F.R. Germany)	Pcs/ Set	Remarks
L8	Oscillator Coil, FM	RLO4N183	RLO4N179	1	
Ĺ8	Oscillator Coil, FM (for United Kingdom)	RL04N169		Prosent.	Deleted
CF2	Ceramic Filter (for United Kingdom)	RVFSFP462I	The state of the s	. 4	Deleted
CF3	Ceramic Filter (for United Kingdom)	RVFSFP462G5	many may security	/	Deleted
Kl .	Front Cabinet Ass'y	RYMFB50LXG8	RYMFB50LXGZ8	1 :	Atti
K2	Rear Cabinet Ass'y	RYFFB50LXG	RYFFB50LXGZ	1.	1875 (6 L) 16.800 (1)
K2	Rear Cabinet Ass'y (for United Kingdom)	RYFFB50LXE	medicine de la compansión		Deleted
R16	Chip 1/8W, 1kΩ	RRD18XJ122	RRD18XJ102	1	
C31	Chip 50 V, 27 pF	ECUX1H22OKC	ECUX1H270KC	1	CHEMAN

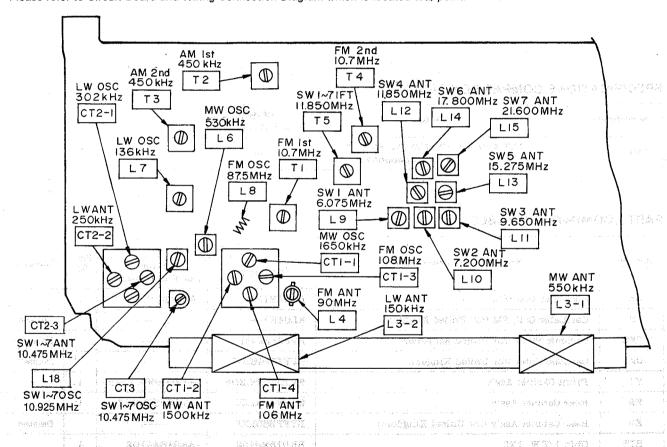
■ FM-RF ALIGNMENT

ORDER NO RE

19 May 19 19 19 19 19 19 19 19 19 19 19 19 19	1990						THE STATE OF THE S
	BAND	SIGNAL GENER SWEEP GENE CONNECTIONS	ATOR or RATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
oibi	10	L	<u> </u>	FM-RF ALI	GNMENT		
(22)	FM		87.5 MHz	Variable capacitor fully closed.	Output meter across voice coil.	L8 (FM OSC Coil	(*4) Adjust for maxi- mum output.
(23)	.FM	Connect to test point through FM dummy	108MHz	Variable capacitor fully open.	,,	CT1-3 (FM OSC Trimmer)	letofoes6d
(24)	FM	antenna. Ńegative side to test point	90 MHz	Tune to signal.	"	L4 (FM ANT Coil)	"
(25)	FM		106 MHz	NO Englishmenton with a little of the		CT1-4 (FM ANT Trimmer)	(*4) Adjust for maxi- mum output. Repeat steps (22)~(25).
	(* 4) T	hree output response		ent; proper tuning is	the center frequenc		

ALIGNMENT POINTS

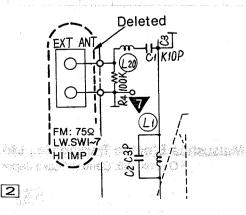
· Please refer to Circuit Board and Wiring Connection Diagram which is located test point.

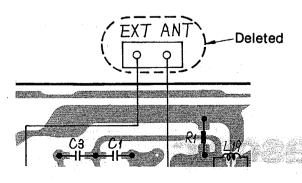


SCHEMATIC DIAGRAM

2

■ CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



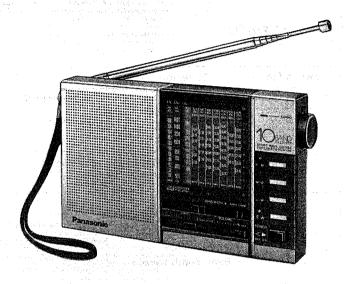


RD @ XGZ Printed in Japan

Service Manua

RF-B50L

FM-MW-LW-SW1~7 10-Band Portable Radio



SPECIFICATIONS

Frequency Range:

FM; 87.5~108 MHz

MW: 520~1610 kHz (577~186 m)

LW; 150~285 kHz (2000~1060 m)

SW1; 5.95~6.2 MHz (50.4~48.4 m) SW2; 7.1~7.3 MHz (42.3~41.1 m)

SW3: 9.5~9.8 MHz (31.6~30.6 m)

SW4; 11.7~12.0 MHz (25.6~25m)

SW5: 15.1~15.45 MHz (19.9~19.4 m)

SW6; 17.7~17.9 MHz (16.9~16.8 m)

SW7; 21.45~21.75MHz (14~13.8m)

Intermediate Frequency: FM; 10.7 MHz

AM (MW, LW); 450kHz

AM (MW, LW); 462kHz (for U.K.)

SW1~7; 1st IF 11.850 MHz SW1~7; 2nd IF 450 kHz

SW1~7; 2nd IF 462kHz (for U.K.)

Sensitivity:

FM; $5\mu V$ (-3dB, Limit Sens)

MW; 101.5 µV/m/50 mW output

LW; 179.7 µV/m/50 mW output

SW1; 2.2 µV/50 mW output SW2; 2.5µV/50mW output

SW3; 1.8µV/50mW output

SW4; 1.0μ V/50 mW output

SW5; 1.0 µV/50 mW output

SW6; 1.5 µV/50 mW output SW7; 6.3 µV/50 mW output

Power Source:

Power Output:

Speaker:

Impedance:

Antenna:

Dimensions:

EXT Antenna; FM 75Ω

550 mW...RMS (max)

Battery)

LW, SW1~7 High

Impedance

Whip Antenna; FM, SW1~7

Ferrite Core Antenna; MW, LW

DC 6V (Four "AA" Size Penlight

(National UM-3 or equivalent)

8cm (3") PM Dynamic Speaker

Earphone/External Speaker

Speaker8Ω

Jack φ3.58Ω

184(W)×112(H)×33(D) mm

 $(7^{1}/_{4} \times 4^{7}/_{16} \times 1^{5}/_{15})^{\prime\prime}$

500g (1 lb 1.6 oz) without batteries

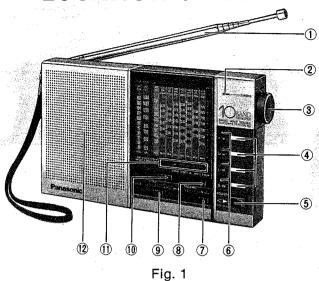
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Trading Co., Ltd.

P.O. Box 288, Central Osaka Japan

LOCATION OF CONTROLS AND COMPONENTS



- 1 Telescopic Antenna
- Tuning Indicator (TUNING)
- 3 Tuning Control (TUNING)
- Band Switches (FM, MW, LW, SW1~7)
 Power Switch (POWER)
- 6 Band Indicator
- 7 Volume Control (VOLUME)
- 8 Band Width Switch (BAND WIDTH) (NAR, WIDE)
- Tone Control (TONE)

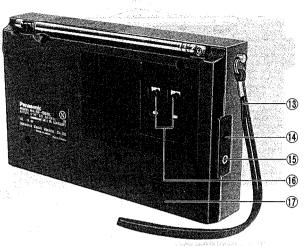
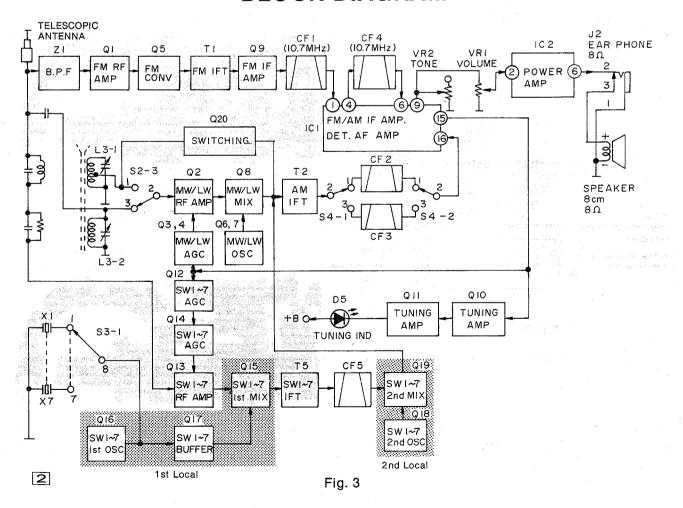


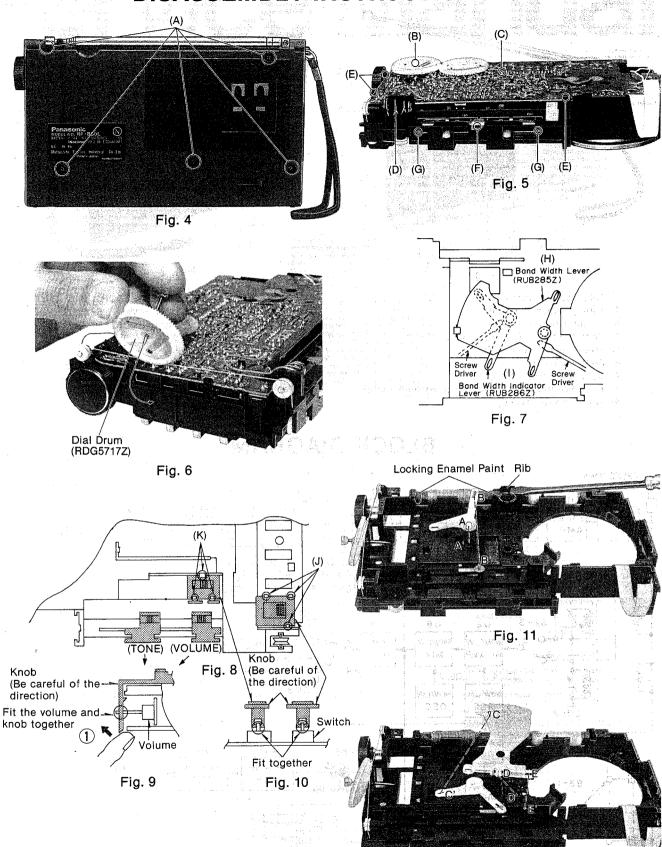
Fig. 2

- 10 SW1~7 Band Switch (SELECTOR) (SW1, SW2, SW3, SW4, SW5, SW6, SW7)
- SW1~7 Band Indicators (INDICATOR)
- Speaker [8 cm (3") 8Ω]
- (13) Hand Strap
- (A) External DC Power Jack (DC IN 6V → ③-⊕)
- (§) Earphone/External Speaker Jack [8Ω only] φ3.5
- External Antenna/Ground Terminals
- Battery Compartment

BLOCK DIAGRAM



DISASSEMBLY INSTRUCTIONS



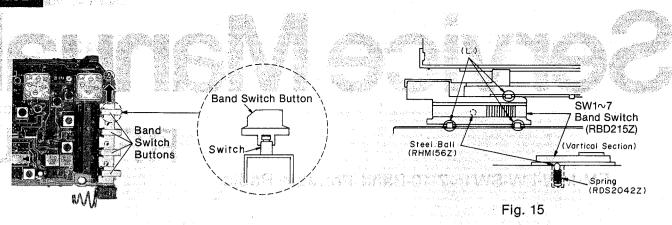


Fig. 13

Fig. 14

Ref. No.	Procedure	Shown in Fig. —.	To remove —.	Remove —.
1	1	4	Rear Cabinet	Screw (2.6×12)(A)×5
2	·			Screw (1.7×3) *1(B)×1
3		5		Screw (2×4)(C)×1
4	1 :	5	Main Circuit Board	Battery terminal (-)(D)×1
5	1∼7	5	and Volume Circuit Board *2	Rib(E)×3
6		5		Screw (2×4)(F)×1
7		5		Screw (2×4)(G)×2
8	1~8	7	Band Width Lever *3	To remove the band width lever (RUB285Z), use a screwdriver or similar tool as shown in the figure(H)×1
9	1~9	7	Band Wide Indicator Lever *4	To remove the band width indicator lever (RUB286Z), use a screwdriver or similar tool as shown in the figure
74 10 17	77, 10 10 10 10 10 10 10 10 10 10 10 10 10	11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Bàr Antenna	To remove the antenna, undo the chassis tab as shown in the figure, and then remove the locking enamel paint from two places to pull out the antenna.
souther o		8, 10	Power Knob	Rib(J)×3
12	1, 12	8, 10	Band Width Knob	Rib(K)×3
13	1, 13 (14)	8, 9	Volume and Tone Knob	Remove the volume and tone knob in the direction of arrow (1).
14 _{v (12)}	1, 14	15	SW1∼7 Band Switch Knob ∗5	Rib(L)×3
15	1∼7, 15	13	Band Switch Buttons	Remove the band switch buttons in the direction of arrow ②.

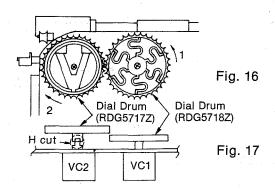
- Detach dial drum (RDG5717Z) from the Variable Capacitor and fit it securely into the chassis holes as indicated by the arrow by using a pin, etc. (Fig. 6).
- *2 Remove the printed circuit board while detaching the jack terminal hole from the chassis.

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- *3 During installation, simultaneously fit in A and A', B and B'. (Fig. 11).

 *4 During installation, simultaneously fit in C and C', D and D', and E and E'. (Fig. 12).
- *5 Remove SW1~7 Band Switch Knob (RBD215Z) by removing 3 ribs of the chassis as shown in Fig. 15. At this time, be careful not to loose the steel ball (RHM156Z) and the spring (RDS2042Z).
- *6 Align the tab on the knob with the grove of each band switch, and then insert until it contacts the stopper. (Fig. 14).

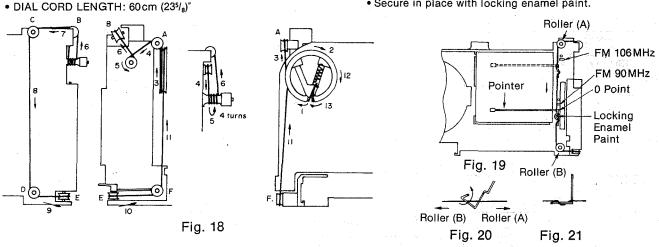
DIAL THREADING



1. • Connect the dial drum (RDG5718Z) to VC1, and then turn it all the way in the direction (counterclockwise) indicated by arrow 1 as shown in Fig. 16.

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- Turn VC2 all the way in the direction (clockwise) indicated by arrow 2, and then mount the dial drum (RDG5717Z) in a position like that shown in Fig. 16.
- Mesh the VC2 dial drum (RDG5717Z) with the VC1 dial drum (RDG5718Z) by fitting the H cut parts together first. (Fig. 17).
- 2. Wind the dial cord as shown in Fig. 18.
 - Attach the dial cord to the roller shaft at rollers C, D and F, and then attach the dial cord to the rollers again to prevent the teeth of the dial drum from being damaged.
- 3. Turn the tuning shaft counterclockwise.
 - Attach the pointer to the dial cord (Figs. 20 and 21), and then slide it downward to the 0 point as shown in Fig. 19.
 - · Secure in place with locking enamel paint.



MEASUREMENTS AND ADJUSTMENTS

B ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

- 1. Set volume control to maximum.
- 2. Set tone control to high.
- 3. Set band switch to LW, MW, SW1~7 or FM.
- 4. Set power switch to ON.
- 5. Set band width switch to wide.

- 6. Set power source voltage to 6V DC.
- 7. Output of signal generator should be no higher than necessary to obtain an output reading.

■ LW. MW. SW1~7 ALIGNMENT

BAND	SIGNAL GENER SWEEP GENE		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY	SETTING	or SCOPE)	and Charles	
			AM-IF AL	IGNMENT	Description of the Care of	
1) MW	Fashion loop of several turns of wire and radiate signal into loop of receiver.	450 kHz 462 kHz (for U.K.) 30% Mod. at 400 Hz	Point of non- interference. (on/ about 600kHz)	Output meter across voice coil.	T2 (AM 1st IFT) T3 (AM 2nd IFT)	Set band width switch to "NAR". Adjust for maximum output.
			LW-RF AL	IGNMENT	/	and the second
2) LW	"	136 kHz	Tuning capacitor fully closed.	v	L7 (LW OSC Coil)	Adjust for maximum output.
B) LW	, , , , , , , , , , , , , , , , , , , ,	302 kHz	Tuning capacitor fully open.		CT2-1 (LW OSC Trimmer)	n tartan ing a salah sal
) LW		150 kHz	Tune to signal.	egita	(* 1) L3-2 (LW ANT Coil)	Adjust for maximum output. Adjust L3-2 by moving coil bobbin along ferrite core.
5) LW	# N	250 kHz			CT2-2 (LW ANT Trimmer)	Adjust for maximum output. Repeat steps (2)~(5).

BAND	SIGNAL GENEI SWEEP GENE		RADIO DIAL	INDICATOR (ELECTRONICS	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY	SETTING	VOLTMETER or SCOPE)		
	1		MW-RF AI	LIGNMENT		
MW	Fashion loop of several turns of wire and radiate signal into loop of receiver.	511kHz	Tuning capacitor fully closed.	Output meter across voice coil.	L6 (MW OSC Coil)	Adjust for maximum output.
MW	N.	1,650 kHz	Tuning capacitor fully open.	и .	CT1-1 (MW OSC Trimmer)	"
·MW	"	550 kHz	Tune to signal.	n	(*1) L3-1 (MW ANT Coil)	Adjust for maximum output. Adjust L3-1 by moving coil bobbin along ferrite core.
MW __	"	1,500 kHz	"	. "	CT1-2 (MW ANT Trimmer)	Adjust for maximum output. Repeat steps (6)~(9).
(*1) Ce	ement antenna bobbir					
		SW	1∼7 2nd LOCAI	L OSC ALIGNME	NT	
SW3	Connect to test point through ceramic capacitor (10 pF). Negative side to test point	10.925 MHz	Tuning capacitor fully closed.	. "	L18 (SW1~7 OSC Coil)	Adjust for maximum output.
SW3	,,	10.475 MHz	Tuning capacitor fully open.	"	(*2) CT3 (SW1~7 OSC Trimmer)	Adjust for maximum output. Repeat steps (10) and (11).
(*2) If	the frequency can no	t adjust "10.47	'5MHz±5kHz'' pleas	e re-adjust it by CT2	2-3 (SW1~7 ANT).	
					<u> </u>	
			SW1∼7 1st IF	ALIGNMENT		
SW4	и	11.850 MHz 30% Mod. at 400 Hz	SW1~7 1st IF Point of non- interference.	Output meter across voice coil.	(*3) T5 (IFT)	Adjust for maximum output.
(*3) Af SV SV	ter alignment, please V1: 16.775MHz±1.5kl	30% Mod. at 400 Hz confirm the of Hz SW5: Hz SW6:	Point of non- interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz	Output meter across voice coil. f T5 IFT. The readir	ng should be figure	output.
(*3) Af SV SV SV	V1: 16.775MHz±1.5kl	30% Mod. at 400 Hz confirm the o Hz SW5: Hz SW6: Hz SW7:	Point of non- interference. scillate frequency of 25.975MHz±1.5kHz	Output meter across voice coil. f T5 IFT. The readir	ng should be figure	output.
(*3) Af SV SV SV	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl	30% Mod. at 400 Hz confirm the o Hz SW5: Hz SW6: Hz SW7:	Point of non- interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz	Output meter across voice coil. f T5 IFT. The reading FREQUEN	ng should be figure	output.
(*3) Af SV SV SV	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl	30% Mod. at 400 Hz confirm the o Hz SW5: Hz SW6: Hz SW7:	Point of non- interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz	Output meter across voice coil. f T5 IFT. The reading FREQUEN	ng should be figure	output.
(*3) Af SV SV SV	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz confirm the o Hz SW5: Hz SW6: Hz SW7: Hz	Point of non- interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz	Output meter across voice coil. f T5 IFT. The reading FREQUEN Z Z Z LIGNMENT	ng should be figure ICY COUNTER I 100 Input s	e below. ens: Less than 100mV Adjust for maximum
(*3) Af SV SV SV	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz confirm the o Hz SW5: Hz SW6: Hz SW7: Hz	Point of non- interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz SW1-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUEN Z Z Z LIGNMENT	ng should be figure ICY COUNTER I 100 Input s	e below. ens: Less than 100mV Adjust for maximum
(*3) Af SV SV SV SW1	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz confirm the of Hz SW5: Hz SW6: Hz SW7: Hz	Point of non- interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz SW1-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUEN Z Z Z LIGNMENT " LIGNMENT "	ng should be figure ICY COUNTER I 1 0 0 Input s L9 (SW1 ANT Coil) L10 (SW2 ANT	e below. ens: Less than 100mV Adjust for maximum output.
(*3) Af SV SV SV SW1	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz confirm the of Hz SW5: Hz SW6: Hz SW7: Hz	Point of non- interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz SW1-RF AL Tune to signal. SW2-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUEN Z Z Z LIGNMENT " LIGNMENT "	ng should be figure ICY COUNTER I 1 0 0 Input s L9 (SW1 ANT Coil) L10 (SW2 ANT	e below. ens: Less than 100mV Adjust for maximum output.
(*3) Af SV SV SV SW1	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz confirm the order SW5: Hz SW6: Hz SW7: Hz S	Point of non- interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz SW1-RF AL Tune to signal. SW2-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUENT Z LIGNMENT " LIGNMENT " LIGNMENT " LIGNMENT "	ng should be figure ICY COUNTER L9 ((SW1 ANT Coil) L10 (SW2 ANT Coil) L11 (SW3 ANT	e below. ens: Less than 100mV Adjust for maximum output. Adjust for maximum output.
(*3) Af SV SV SV SW1	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz confirm the order SW5: Hz SW6: Hz SW7: Hz S	Point of non- interference. scillate frequency of 25.975 MHz±1.5kH; 28.500 MHz±1.5kH; 32.300 MHz±1.5kH; SW1-RF AL Tune to signal. SW2-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUENT Z LIGNMENT " LIGNMENT " LIGNMENT " LIGNMENT "	ng should be figure ICY COUNTER L9 ((SW1 ANT Coil) L10 (SW2 ANT Coil) L11 (SW3 ANT	e below. ens: Less than 100mV Adjust for maximum output. Adjust for maximum output.
(*3) Af SV SV SV SW1	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz Confirm the order SW5: Hz SW6: Hz SW7: Hz S	Point of non- interference. scillate frequency of 25.975 MHz±1.5kH; 28.500 MHz±1.5kH; 32.300 MHz±1.5kH; SW1-RF AL Tune to signal. SW2-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUEN Z Z Z LIGNMENT " LIGNMENT	L10 (SW2 ANT Coil) L12 (SW4 ANT	Adjust for maximum output. Adjust for maximum output. Adjust for maximum output. Adjust for maximum output.
(*3) Af SV SV SV SW1	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz Confirm the order SW5: Hz SW6: Hz SW7: Hz S	Point of non-interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz SW1-RF AL Tune to signal. SW2-RF AL " SW3-RF AL " SW4-RF AL " SW4-RF AL " SW5-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUEN Z LIGNMENT "	L10 (SW2 ANT Coil) L12 (SW4 ANT	Adjust for maximum output. Adjust for maximum output. Adjust for maximum output. Adjust for maximum output.
(*3) Af SV SV SV SW1 SW2 SW3	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz Confirm the order SW5: Hz SW6: Hz SW7: Hz S	Point of non-interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz SW1-RF AL Tune to signal. SW2-RF AL " SW3-RF AL " SW4-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUEN Z LIGNMENT "	ng should be figure ICY COUNTER L9 (SW1 ANT Coil) L10 (SW2 ANT Coil) L11 (SW3 ANT Coil) L12 (SW4 ANT Coil) L13 (SW5 ANT Coil)	Adjust for maximum output.
(*3) Af SV	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz Confirm the order SW5: Hz SW6: Hz SW7: Hz S	Point of non-interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz SW1-RF AL Tune to signal. SW2-RF AL " SW3-RF AL " SW4-RF AL " SW4-RF AL " SW5-RF AL	Output meter across voice coil. f T5 IFT. The reading FREQUEN Z LIGNMENT "	ng should be figure ICY COUNTER L9 (SW1 ANT Coil) L10 (SW2 ANT Coil) L11 (SW3 ANT Coil) L12 (SW4 ANT Coil)	Adjust for maximum output.
(*3) Af SV	V1: 16.775MHz±1.5kl V2: 17.900MHz±1.5kl V3: 20.350MHz±1.5kl V4: 22.550MHz±1.5kl	30% Mod. at 400 Hz confirm the order SW5: Hz SW6: Hz SW7: Hz SW7: Hz SW7: Hz 11.850 MHz 11.850 MHz	Point of non-interference. scillate frequency of 25.975 MHz±1.5 kHz 28.500 MHz±1.5 kHz 32.300 MHz±1.5 kHz SW1-RF AL Tune to signal. SW2-RF AL " SW3-RF AL " SW4-RF AL " SW4-RF AL " SW5-RF AL	Output meter across voice coil. ITS IFT. The reading FREQUEN IGNMENT	ng should be figure ICY COUNTER L9 (SW1 ANT Coil) L10 (SW2 ANT Coil) L11 (SW3 ANT Coil) L12 (SW4 ANT Coil) L13 (SW5 ANT Coil)	Adjust for maximum output. Adjust for maximum output.

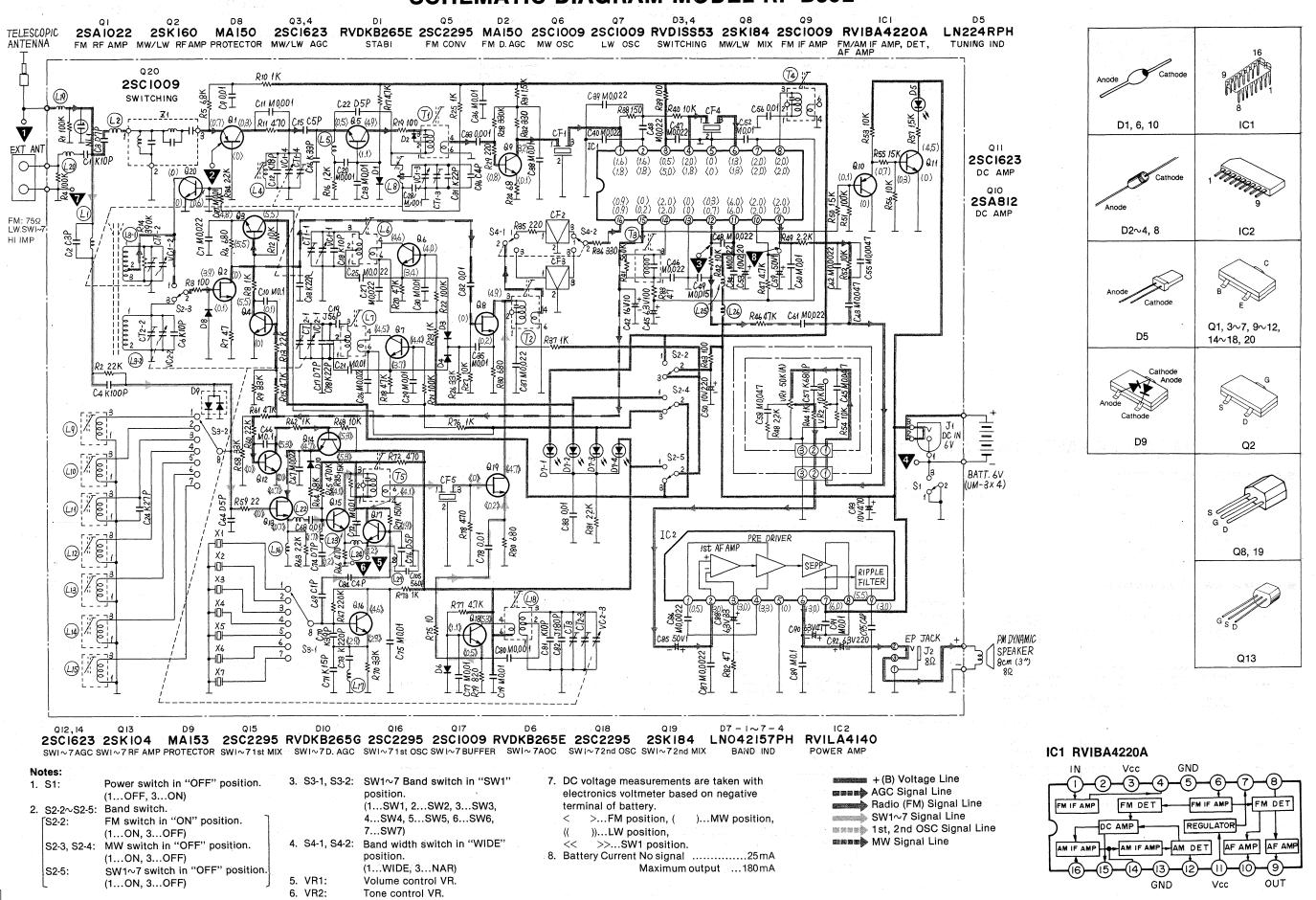
SW Dummy Antenna (For Steps (10)~(19))

To Receiver

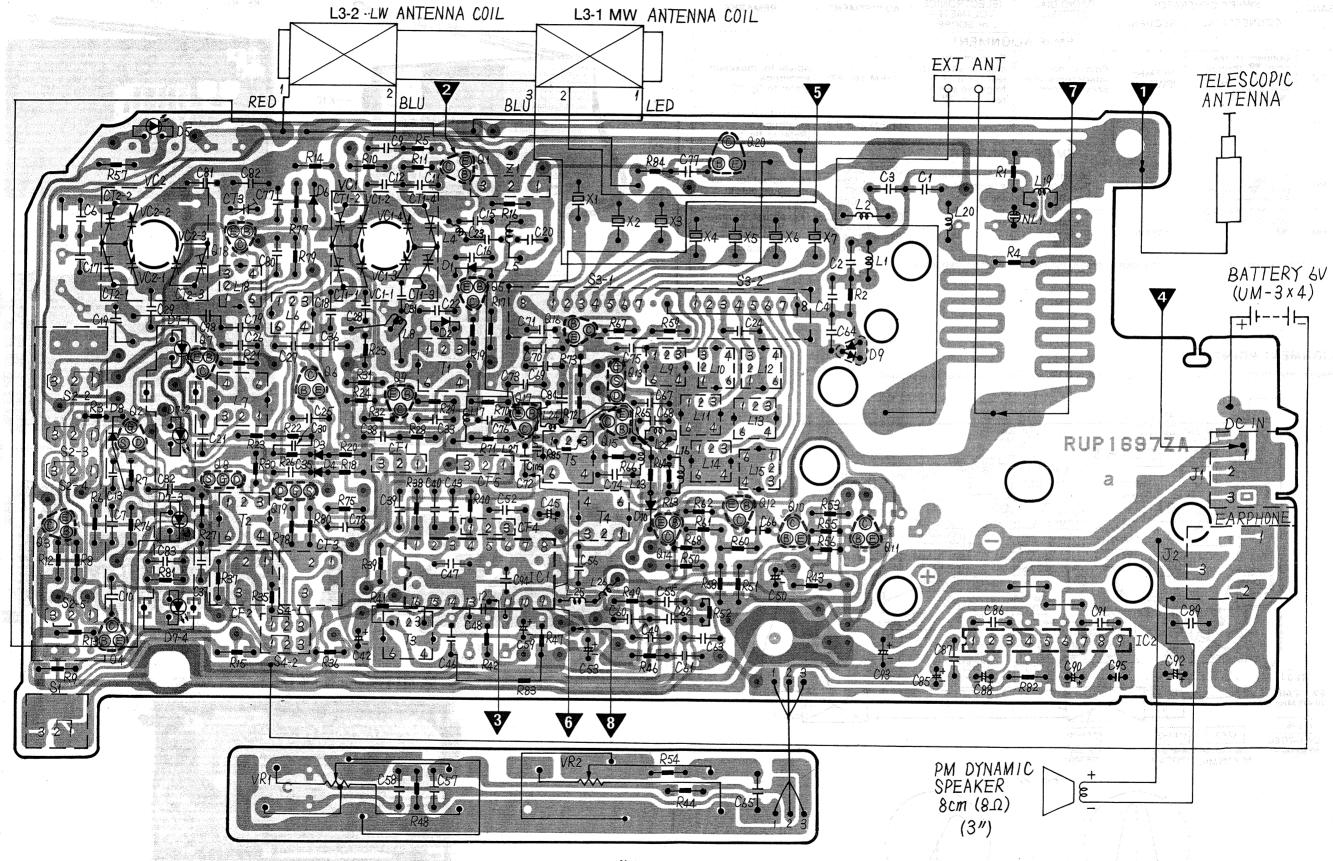
To SG

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SCHEMATIC DIAGRAM MODEL RF-B50L



CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM MODEL RF-B50L













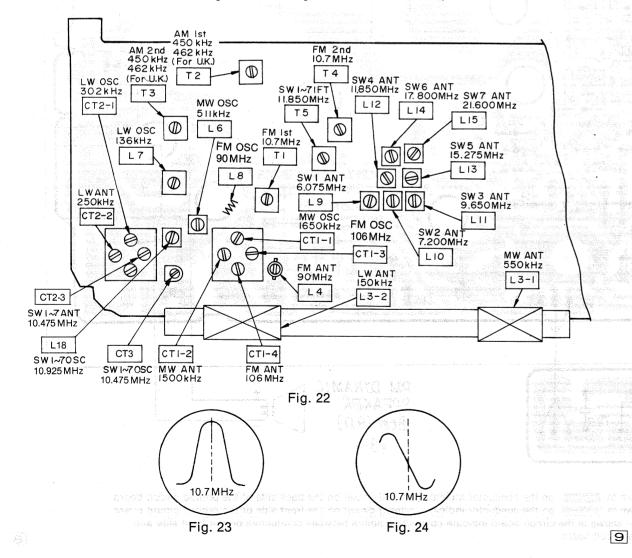
- The circuit shown in on the conductor indicates printed circuit on the back side of the printed circuit board.
 The circuit shown in on the conductor indicates printed circuit on the front side of the printed circuit board.
 The symbols (*) shown in the circuit board indicate connection points between conductors on the front side and back side of the circuit board.

E FM ALIGNMENT

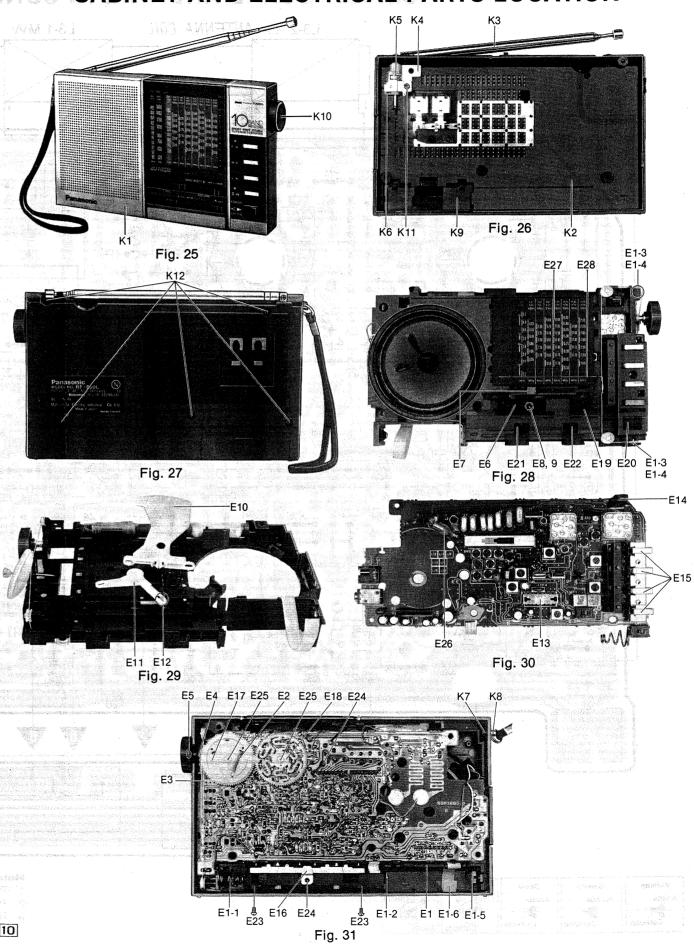
						- 1 THE STATE OF THE PARTY OF T	하다 가 그들도 하면 되는 이 이 이번 것으로 하다면 그
	BAND			RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER	ADJUSTMENT	REMARKS
		CONNECTIONS	FREQUENCY		or SCOPE)		
				FM-IF AL	IGNMENT		
20)	FM	Connect to test point through 0.001 µF. Negative side to test point	10.7 MHz (SWP.)	Point of non- interference. (on/ about 90 MHz)	Connect vert. amp. of scope to test point . Negative side to test point .	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Refer to fig. 23.)
21)	FM	" i	***************************************	Andre of the special s	· resident conference of the c	T4 (FM 2nd IFT)	Adjust for maximum amplitude. (Refer to fig. 24.)
				FM-RF AL	IGNMENT		
22)	FM	Connect to test point V through FM dummy	90 MHz	90 MHz [Refer to Fig. 19]	Output meter across voice coil.	L8 (FM OSC Coil) L4 (FM ANT Coil)	(*4) Adjust for maximum output.
23)	FM	antenna. Negative side to test point T 106MHz [Refer to Fig. 19]		[Refer to		CT1-3 (FM OSC Trimmer) CT1-4 (FM ANT Trimmer)	(*4) Adjust for maximum output. Repeat steps (22) and (23).

■ ALIGNMENT POINTS

• Please refer to Circuit Board and Wiring Connection Diagram which is located test point.



CABINET AND ELECTRICAL PARTS LOCATION



REPLACE	MENT PARTS LI	ST RF-B50L	1.47	Ref. No.	Part No.	Part Name & Description	Per Set
1.Important Componen	ts identified by Δ	(RD8309538	1.57	L6 L7 L8	RLO2A10 RLO1A2 RLO4N183	Oscillator Coil, MW Oscillator Coil; LW Oscillator Coil, FM	1 1
When repl	parts	e components, use only manufacture e standard parts and may differ f	1 3 9	L9 L10	RLA3A8	Antenna Coil, SW2	1
productio	on parts. ORS & CAPACITO Therwise specified.	langel y typesgebale DRS Green that yan yan	393 7.3	L11,12 L13 L14	RLA3A11 RLA3A12 RLA3A13	Antenna Coil, SW3, SW4 Antenna Coil, SW5 Antenna Coil, SW6	2 1 1
All resist	tors are in OHMS (Ω) K=1000 $Ω$, M=1000k $ΩO FARADS (μF) P=μμF$	4 4 8 8 4 1 1 7 1	L15 L16 L17	RLA3A14 RLQZB101K RLQZA8R2K	Antenna Coil, SW7 Choke Coil Choke Coil	1 1 1
*Type & Type ERC:Sol		er Im ERW:Wirewound Resister	t gas gara	L18	RLO3A10	Oscillator Coil, SW1~7 2nd Local FM 1st IFT, SW1~7	1
ERD:Car RRD:Chi	rbon ERG Metal Ox ERO Metal Fi	ide ERS: Fusible Resister Im ERF: Cement Resister		T2 T3	RLI2A10 RLI2A20	AM 1st IFT AM 2nd IFT	1
10,16:1/	/8W 14,25:1/4W 1: Voltage of Capaci	2:1/2W 1:1W 2:2W 3:3W		Т4	RLI4A9	FM#2nd IFT Same Same Same Same Same Same Same Same	1
Type	emi-conductor ECC	DD.ECKD.ECBT:Ceramic	1	VR1	EWALG2C10A54	Variable Resistor, 50kΩ (A) Variable Resistor,	1
	tyrol ECC	QM,ECQV,ECQG:Polyester EA,ECSZ :Electrolytic	s seeds o total	VR2	EWALGOC10A14	10kΩ (A)	1
Voltage		The second of th		VC1-1∿ 1-4	RCV4LC4V1N	VARIABLE CAPACITORS Tuning Capacitor/with	
ECQ Tyr	Pe ECQV, Type EC 7 0,5: 50V OF	F:3.15V OJ :6.3V 1H,1V,50:		VC2-1∿	Zimulau 1720 - Res 21 - Zimen	Trimmer Capacitor (CT1-1∿1-4) MW, FM	1
2A:100V 2E:500V 2H:500V	7 2:200V 1V	1:10V	100V	2-4	RCV3YC4VN No -	Tuning Capacitor/with Trimmer Capacitor (CT2-1~2-4) LW, SW1~7	1
7 (1) (1) (1) (1) (1) (1) (1) (1	Tales of the control	Adjust to the second of the se	4 1 4	CT3	RCVCTZ3130	Trimmer Capacitor CERAMIC FILTERS	1
Ref. No.	Part No.	Part Name & Description	Per Set	CF1,4 CF2	RVF107NAR RVFSFP455G5	Ceramic Filter Ceramic Filter	2
4.4		INTEGRATED CIRCUITS, TRANSISTORS AND DIODES	197.1	CF2	RVFSFP462I	Ceramic Filter (for United Kingdom)	1 1
2 R	RVIBA4220A RVILA4140	IC I	1	CF3 CF3	RVFSFP455I RVFSFP462G5	Ceramic Filter Ceramic Filter (for United Kingdom)	1
2	SA1022C SK160K5	Transistor (Si) Transistor (Si)	1 1 1	CF5	RVFSFE107SW	Ceramic Filter COMPONENT COMBINATION	1
2,14 2 ,15,	SC1623L5A	Transistor (Si)	4	Z 1	RXABPWB5	Component Combination SPEAKER	1
,7,9, 7,20 2	2SC2295B 2SC1009F4	Transistor (Si) Transistor (Si)	5		EAS8P24S	Speaker, 8cm (3"); 8Ω PM Dynamic	1
,19 2 0 2	2SK184Y 2SA812M5 2SC1623L6A	Transistor (Si) Transistor (Si) Transistor (Si)	1	S1	RSS2A37Z	SWITCHES Switch, Power	1
3	2SK104F RVDKB265E	Transistor (Si)	1	S2 S3	RSHX050Z RSS7B02Z	Switch, Band (FM, MW, LW, SW1∿7) Switch, Band (SW1∿7)	1
,8 M	MA161 RVD1SS53	Diode (Si) Diode (Si)	2	S4	RSS2B36Z	Switch, Band Width	1.11 / 3.
I	LN224RPH LN042157PH MA153	LED Diode (Si) Diode (Si)	44 TO	J1 J2	RJJ1B1Z RJJ1D3Y	Jack, DC IN Jack, Earphone	1
19.61 70.0	RVDKB265G	CRYSTALS	44 555 41 15.	K1 K2	RYMFB50LXG8 RYFFB50LXG	CABINET PARTS Front Cabinet Ass'y Rear Cabinet Ass'y	1
. 2770 . 471 <mark> </mark> . 333	RVCA16775NRN RVCA17900NRN RVCA20350NRN	Crystal: Advisorration Crystal Crystal	1 1	K2	RYFFB50LXE XEARR130GBY	Rear Cabinet Ass'y (for United Kingdom) Telescopic Antenna	11
; ; 186 1	RVCA22550NRN RVCA25975NRN RVCA28500NRN RVCA32300NRN	Crystal Crysta	211 25. XII 25.	K4 K5	RJT826Z RHM89Z RMA5083Z	Terminal, Antenna Roller Plastics Antenna	1
3-1,3-2	RLF6D18	COILS AND TRANSFORMERS Antenna Coil, MW, LW		K7 K8 K9	XUC2FT RKH96Y RYNFB50M	Bracket Circlip Hand Strap Battery Cover Ass'y	2
4	RLO4N120	Antenna Coil, FM		K10 K11	25年2月1日 1月1日 1月1日 1月1日 1日日 1日日 1日日 1日日 1日日 1	Knob, Tuning	1
			1 1 1	K12	XTN26+12CFZ	Screw	

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Ref. No.	name Part No.	ran I	Part Na	me & Description	Per Set	Ref. No.	Part No.	Value	Ref. No.	Part No.	Value
E1 E1-1 E1-2	RZAFB50M RJC735Z RJC368Z	Di Te	al Ch rmina	CAL PARTS assis Ass'y 1 Battery -	1 1 1 1	R39 R40 R41 R42	RRD18XJ101 RRD18XJ103 ERD10TJ564 RRD18XJ103	100 10k 560k S	C28 C29 C30 C31	ECUX1H103MD ECUX1H103MD ECFT1E103MD	0.01 0.01 0.01 22P
E1-3 E1-4 E1-5	RDR49Z RDY45Z RJC935Z	Ro Sh Te	Roller Shaft, Roller Terminal, Battery +, - Battery String			R43 R44	RRD18XJ101 RRD18XJ102	10k 100 1k	C32 C33	ECUX1H103ZF ECUX1H102ZF	0.01 0.001
E1-6 E2 E3 E4	RHS31Z RDS2061Z RDZ03Y RDX187Y	Sp: Co: Sh:	ring, rd, D aft,	Dial (60cm) [Funing 2]	1 1 1 ROLL 1	R49	RRD18XJ473 RRD18XJ472 RRD18XJ222 RRD18XJ222	47 4.7k 2.2k 2.2k	C35 C36 C37 C38	ECUX1H103MD	0.01 0.01 0.022 0.01
≅5 ≅6	XUC12FT RBD215Z	Ci. Kno	Band S	v1∿7 andreige. Switch	1 S	R50 R51 R52 R53	RRD18XJ153 RRD18XJ104 ERD10TJ103 RRD18XJ103	15k 100k 10k S 10k	C39 C40 C42 C43	ECUX1H223MD ECEA1CK100	0.022 0.022 10 0.022
57 58 59	RGK1139Z RDS2042Z RHM156Z	Sp:	ring, Band S	Ith Indicator SW1~7 Switch Knob all, SW1~7	1.	R54 R55 R56	RRD18XJ103 RRD18XJ153 RRD18XJ103	10k 15k 10k	C44 C45	ECEA0JK101	0.022 100 0.022
110 111	RUB285Z RUB286Z	Bai Bai	Band S nd Wid nd Wid	Switch Knob th Lever th Indicator	1 1	R57 R58 R59 R60	RRD18XJ152 RRD18XJ333 RRD18XJ220 RRD18XJ223	1.5k 33k 22 22k	C47 C48 C49 C50	ECUX1H223MD ECFT1E223MD	0.022 0.022 0.015 220
112 113 114	RHS706Y RMC171Y RMP209Z	Spa Sh:	acer	Plate (IC1)	1 1	R61 R62 R63	RRD18XJ473 RRD18XJ102 RRD18XJ222	47k 1k 2.2k	C51 C52 C53 C55	ECUX1H223MD ECUX1H103MD ECEA1AU221	0.022 0.01 220 0.0047
215 216 217	RBC484Z RMR112Z RDG5717Z	Bra	acket Volume	and Switch Tone and Control	1 1	R64 R65 R66	RRD18XJ683 ERD10TJ474 RRD18XJ471	68k 470k S 470	C5 6	ECUX1H103ZF ECUX1H681KB	0.01 680P 0.047
118 119 120 121	RDG5718Z RBD211Z RBD212Z RBD214Z RBD213Z	Dru Kno Kno Kno Kno	um, Diob, Baob, Poob, Toob, Vo	al (VC1) and Width ower one	1 1 1 1 1	R67 R68 R70 R71 R72 R73	RRD18XJ224 RRD18XJ103 RRD18XJ332 RRD18XJ154 RRD18XJ471 RRD18XJ102	220k 10k 3.3k 150k 470 1k	C58 C59 C60 C61 C62 C63	ECEA1HK010 ECUX1H103MD ECUX1H223MD ECUX1H222MD	1 0.01 0.022 0.0022 0.047
23 224 225	XSN2+4 XTNR2+4CFZ XSHR17+3	Sci Sci	rew rew rew	in Christian (1995) San Christian (1995) San Christian (1995)	2 S 2	R75 R76 R77	RRD18XK100 RRD18XJ102 RRD18XJ472	10 1k 4.7k	C64 C65 C66	ECUX1H050DC ECUX1E473MD	5P 0.047 0.1
26 27 28	XANR2T20 RKD639X RDP249Z	Nec Sca Poi	on Lan	production	1 1 1	R77 R78 R79 R80 R81 R82	RRD18XJ471 RRD18XJ821 RRD18XJ681 RRD18XJ222	4.7k 470 820 680 2.2k 47	C67 C68 C69 C70 C71	ECUX1H223MD ECUX1H103ZF ECUX1H010CC ECUX1H390KC ECUX1H150KC	0.022 0.01 1P 39P 15P
· 7	RQD204Z XEH1A1-X	Car Ear	rrying rphone	Case MATERIALS	1	R83 R84 R85	RRD18XJ470 ERD25FJ470 RRD18XJ222 ERD10TJ153 CAPACITORS	47 47 S 2.2k 15K S	C72 C73 C74 C75	ECUX1H103MD ECUX1H221KC ECUX1H070DC	0.01 220P 7P 0.01
	XZB26X35A04 RPN4335Z RPN4336Z RPK1740Z	Pol Pac Pac	lyethy 1	lene Cover	1 S	C1 C2 C3 C4	ECUX1H100KC ECUX1H030CC ECUX1H070DC	10P 3P 7P 100P	C76	ECUX1H050DC ECUX1H103MD	5P 0.01 0.01
	RPF9Z RPE526Z QQC0689A	Pol Pad Cau	lyethy i ution	lene Cover	1 1 1	C6 C7 C9 C10	ECUX1H100KC ECUX1H223MD ECUX1H103ZF	10P 0.022 0.01	C79 C80	ECUX1H103MD ECUX1H102MD ECUX1H100KC ECMS05181J	0.01 0.001 10P 180P
Ref.	RQX4257Z	Ins		MATERIAL ion Book	1	C11 C12		0.001 18P 22P	C83 C84 C85 C86	ECUX1H040CC ECEA50Z1	0.01 4P 1 0.0022
No. RES	* " - "	alue Ok	No. R19 R20	Part No. RRD18XJ101 RRD18XJ473	Value 100 47k	C15 C16 C17 C18	ECUX1H050CC ECUX1H330KC ECUX1H070DC ECUX1H100KC	5P 33P 7P 10P	C89	ECEA1CS330 ECQV05104JZ	0.0022 33 0.1
2 RRD1 3 RRD1 4 RRD1 5 RRD1	18XJ223 2 18XJ101 10 18XJ104 10 18XJ682 6.	2k 0 0k 8k	R21 R22 R23	RRD18XJ104 RRD18XJ104 RRD18XJ102	100k 100k 1k	C19 C20 C21 C22 C23	ECUX1H050DC	56P 0.001 0.01 5P	C91 C92 C93 C94	ECEA0JU221 ECEA1AU471 ECUX1H223MD	47 0.01 220 470 0.022
7 RRD1 8 RRD1 9 RRD1	18XJ470 4 18XJ102 18XJ333 3	0 7 1k 3k 1k	R24 R25 R26 R27 R28 R29	RRD18XJ680 RRD18XJ102 RRD18XJ332 RRD18XJ103 RRD18XJ334 RRD18XJ221		C24 C25 C26 C27	ECUX1H270KC ECUX1H223MD ECUX1H223MD	27P 0.022 0.022 0.022	C97 C98	ECUX1H103MD ECUX1H103MD ECCD1H220KU ECKD1H561KB	4P 0.01 22P 560P
12 RRD1 13 RRD1 14 RRD1	18XJ223 2: 18XJ474 47	0k 2k	R30 R31 R32 R35	RRD18XJ681 RRD18XJ152 RRD18XJ331	1.5k 330 220					ি কাল্ড কিন্তু এই কাল্ড বি এ বি নিক ইনিয়া বৈচাৰ	e e de Service La Service La Service
16 RRD1	18XJ122 1 18XJ472 4	2k	R36 R37 R38		330 1k 150						